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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/897,909	07/05/2001	Yasuhiro Sato	N1122-U	1406
7590	04/09/2004		EXAMINER	
McGinn & Gibb, PLLC. Suite 200 8321 Old Courthouse Road Vienna, VA 22182-3817			SEFER, AHMED N	
			ART UNIT	PAPER NUMBER
			2826	
DATE MAILED: 04/09/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	09/897,909	SATO ET AL.
<b>Examiner</b>	<b>Art Unit</b>	
	A. Sefer	2826

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

## Disposition of Claims

4)  Claim(s) 1-15 and 22-29 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5)  Claim(s) 5 and 14 is/are allowed.

6)  Claim(s) 1,6-10,15 and 24-29 is/are rejected.

7)  Claim(s) 2-4,11-13,22 and 23 is/are objected to.

8)  Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

9)  The specification is objected to by the Examiner.

10)  The drawing(s) filed on \_\_\_\_\_ is/are: a)  accepted or b)  objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)  The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. §§ 119 and 120**

12)  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a)  All b)  Some \* c)  None of:  
1.  Certified copies of the priority documents have been received.  
2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3.  Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

13)  Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a)  The translation of the foreign language provisional application has been received.

14)  Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

**Attachment(s)**

1)  Notice of References Cited (PTO-892) 4)  Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_ .  
2)  Notice of Draftsperson's Patent Drawing Review (PTO-948) 5)  Notice of Informal Patent Application (PTO-152)  
3)  Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_. 6)  Other: \_\_\_\_\_ .

## **DETAILED ACTION**

### ***Response to Amendment***

1. The amendment filed on January 6, 2004 has been entered and claims 16-21 have been cancelled.

### ***Response to Arguments***

2. Applicant's arguments with respect to claims 1-4,6-13 and 15 have been considered but are moot in view of the new ground(s) of rejection.

### ***Priority***

3. Should applicant desire to obtain the benefit of foreign priority under 35 U.S.C. 119(a)-(d) prior to declaration of an interference, a translation of the foreign application should be submitted under 37 CFR 1.55 in reply to this action.

### ***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 25-29 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 25, 26 and 28 recite the limitation "said insulating resin comprising a conductive material". There is insufficient antecedent basis for this limitation in the claims.

***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
- (e) the invention was described in–
  - (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or
  - (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

7. Claims 1 and 6-9 are rejected under 35 U.S.C. 102(e) as being anticipated by Sato US PG-Pub 2003/0067564.

Sato discloses in figs. 8-11 a reflector comprising a body formed of insulating resin 1/21, and having an outer surface and an inner surface defining a space open to an object to which a light is to be directed, and a conductive pattern 24/34 printed on said outer surface capable of supplying an electric power to a light source 8 placed in said space.

As for claim 6, Sato discloses said body having a first end and a second end respective corresponding to two ends of a lamp, and said conductive pattern extends along a shortest path between said first end and said second end.

As for claim 7, Sato discloses a groove (unnumbered) formed in said body, and a conductive pattern 24/34 is formed in said groove.

As for claim 8, Sato discloses a conductive pattern coplanar with a surface of said body to which said groove is open.

As for claim 9, Sato discloses plural conductive sub-patterns 24/34 arranged in parallel to one another.

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 10, 15 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over admitted prior art (APA) in view of Nakayama USPN 6,201,586.

The APA discloses in figs. 1-6 a liquid crystal display unit for producing an image, comprising: a liquid crystal panel 5 having an incident surface and an image producing surface; a driving circuit 6 connected to said liquid crystal panel, and varying the transparency of a part of said liquid crystal panel so as to transmit a light from said incident surface to said image producing surface through said part; and a light source 1 illuminating said light incident surface with said light, and including a lamp 10 comprising electrodes and generating said light propagated along an optical path to said liquid crystal panel, a power supply cable 3 comprising a conductive pattern 32 and voltage application lines directly connected to one of said electrodes and connected through said conductive pattern to the other of said electrodes but does not disclose a reflector formed of an insulating resin and having an outer surface where said conductive pattern is printed and an inner surface defining a space accommodating said lamp and open to said optical path for directing said light to said optical path.

Nakayama discloses (figs. 1-7 and col. 6, lines 14-65) a reflector 3 comprising of an insulating resin and including an outer surface where a conductive pattern 60 is printed and an inner surface defining a space accommodating a lamp and open to said optical path for directing a light to an optical path.

Therefore, it would have been obvious to one skilled in the art at the time the invention was made to incorporate Nakayama's teachings with the APA since that would provide an improved support structure as taught by Nakayama.

As for claim 15, Nakayama discloses a reflector having a first end and a second end respective corresponding to two ends of a lamp, and said conductive pattern extends along a shortest path between said first end and said second end.

As for claim 24, Nakayama discloses conductive patterns comprising multiple conductive patterns comprising a plurality of conductive stripes.

***Allowable Subject Matter***

10. Claims 5 and 14 are allowed.
11. Claims 2-4, 11-13, 22 and 23 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to A. Sefer whose telephone number is (571) 272-1921.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nathan Flynn can be reached on (571) 272-1915.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-2800.

ANS  
March 31, 2004

NATHAN J. FLYNN  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2800

